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MEANS FOR AUTOMATICALLY SECURING SLIDING WINDOW SASHES.
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FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.
To all whom it may concern:

Be it known that we, Cecil Downer Groves, a subject of the King of England, residing at 204 Livingstone road, Thornton Heath, Surrey, England, whose post-office address is 204 Livingstone road, Thornton Heath, Surrey, England, Edward Henry Jarvis, a subject of the King of England, residing at 41 Pendevon road, Croydon, Surrey, England, whose post-office address is 41 Pendevon road, Croydon, Surrey, England, and Herbert William Bradbury, a subject of the King of England, residing at 14 Clarendon road, Wallington, Surrey, England, whose post-office address is 14 Clarendon road, Wallington, Surrey, England, have invented certain new and useful Improvements in Means for Automatically Securing Sliding Window-Sashes, of which the following is a Specification.

This invention relates to means for automatically securing sliding window-sashes in any position in their frames of the kind comprising a pivoted gravity actuated cam mounted in a recess in the vertical member of the window frame so as normally to bear against the sash stile, and provided with an arm for turning the cam on its pivot.

The object of this invention is to provide a device of the character described wherein the cam carries an antifriction roller on its tail which roller can be jammed against the sash stile, to act as a brake when lowering the window, by operating the arm on the cam pivot.

Our invention is illustrated in the accompanying drawings wherein—

Figure 1 is a front elevation of a portion of a sliding sash window frame with our invention fitted thereto; and Fig. 2 is a section of the same taken on the line 2—2 of Fig. 1.

Fig. 3 is a vertical sectional view on the plane indicated by the line 3—3 of Fig. 4.

Fig. 4 is an elevation, partly in section, of a portion of a sliding sash window frame with our invention fitted thereto.

The same parts are lettered to correspond in all four figures of the drawings.

In these drawings A is the window frame, B the sash frame and C the glass of the window.

According to this invention we form a recess A' in the front or in the outer face of the vertical member of the window frame A and in this recess A' we pivot a cam piece D carrying an antifriction roller D' at its lower end or tail. The cam D is so weighted and mounted as to be caused by gravity to bear against the sash stile B and either on the front face or on the outer face thereof according to its construction and mounting. Figs. 1 and 2 show the invention mounted so that the cam D will bear against the front face of the sash stile, and Figs. 3 and 4 show a modification wherein the cam D is mounted to bear against the outer face of the sash stile.

The gravity actuated cam D is pivoted in a suitable casing D' secured to the outer face of the vertical member of the window frame A as shown in Figs. 1 and 2, or in the recess A' as shown in Figs. 3 and 4.

The gravity actuated cam D is fast on its pivot pin D'' which passes through suitable bearings in the casing D' and terminates in a fixed arm D'.

When the sash frame B is raised the cam will be turned outwardly about its pivot D'' as shown by the dotted lines in Fig. 2, and will allow the sash frame to pass upward in the window frame. But the cam will automatically fall by gravity into position to jam against the sash stile when the sash frame is released. This is the normal position and is shown in full lines in Fig. 2 and also in Fig. 3.

When it is desired to lower the sash frame the grip of the cam D on the sash frame is released by pressing the arm D', whereupon the sash frame is free to fall; but to retard its fall the arm D'' is operated until the antifriction roller D' is pressed against the sash frame as shown in dotted lines in Fig. 2, thereby acting as a brake upon the sash frame which can be lowered gently as desired by relieving the pressure on the arm D''. When the pressure on the arm D'' is entirely removed the cam falls inward by gravity on to the sash frame and holds it firmly in that adjusted position.

Where it is necessary to provide an extra tight grip between the cam and the window frame, for example when these parts are made of material other than wood, we serrate the operative face of the cam, or we pivot a serrated block thereto.
Having fully described our invention, what we claim and desire to secure by Letters Patent is:

1. A sash window comprising a frame, a sliding sash mounted in said frame, an aperture in said frame adjacent to the sliding sash, a gravity cam pivoted in said aperture so as normally to bear against the sash stile, an antifriction roller mounted on said cam below its pivot, and an arm on said cam for rotating it to bring the antifriction roller against the sash stile.

2. A sash window comprising a frame having an opening in its side forming a recess, a housing in said recess, a gravity actuated cam piece pivoted in said housing so as to pass through the opening in the frame, an antifriction roller rotatably mounted on said pivoted cam piece and below its center of motion, an arm on said cam piece for turning it on its pivot to bring the antifriction roller against the sash stile, and a sash slidably mounted in said frame with its stile in the path of the pivoted gravity cam.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

CECIL DOWNER GROVES,
EDWARD HENRY JARVIS,
HERBERT WILLIAM BRADBURY.

 Witnesses:
J. PHILLIPS CRAWLEY,
KENNETH L. STEWARD,